**K-5 Math Lesson Plan**

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| **Teacher: Aldous/Wells** | | | **Grade: 5** | | | **Date(s)**: August/September 2012 |
| **Unit Title:**  Unit 1 – Understand the Decimal Place Value System | | | | **Corresponding Unit Task:**  **“2012 Summer Olympics – Who Gets the Gold?”**  **(Teach Prior to task 3)** | | |
| **Essential Question(s):**  **How do I compare decimals to the thousandths?** | | | | | | |
| **Materials/Resources** | | | | **Essential Vocabulary** | | |
| **Teacher:**  **Stopwatch, paper/plastic money, white board, markers** | | **Student:**  **Pencil, math journal** | | | **Thousands, hundreds, tens, ones, tenths, hundredths, thousandths, compare, <less than, greater than>, equal to=**  **Optional words: ascending order, descending order** | |
| **Learning Experience** | | | | | | |
| **8 Mathematical Practices:**  1. Make sense of problems and persevere in solving them.  2. Reason abstractly and quantitatively.  3. Construct viable arguments and critique the reasoning of others.  4. Model with mathematics.  5. Use appropriate tools strategically.  6. Attend to precision.  7. Look for and make use of structure.  8. Look for and express regularity in repeated reasoning. | **Common Core State Standards:**  **5.NBT.3b**  **Compare two decimals to thousandths based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons. (Correlates to NCSCOS Math Objective 1.01)**  **5.NBT.4**  **Use place value understanding to round decimals to any place.** | | | | | |
| **I Can Statement(s):**   * I can use the symbol (=) when comparing numbers. * I can use the symbol (<) when comparing numbers. * I can use the symbol (>) when comparing numbers. * I can round decimals to the tenths and hundredths place | | | | | |
| **Activating Strategy/Hook:** (How will students become cognitively engaged and focused?)  Take students outside for a timed race. One student at a time, racing the clock. Distance determined by teacher. Record each student’s times to be used later in the lesson. | | | | | |
| **Teacher Directed:**  Post the chart below or give the students copies   |  |  |  |  |  | | --- | --- | --- | --- | --- | | Rank | Lane | Name | Nationality | Result | | 6 | 2 | Michael Frater | Jamaica | 9.97 | | 8 | 3 | Darvis Patton | United States | 10.03 | | 1 | 4 | Usain Bolt | Jamaica | 9.69 | | 2 | 5 | Richard Thompson | Trinidad and Tobago | 9.89 | | 3 | 6 | Walter Dix | United States | 9.91 | | 5 | 7 | Asafa Powell | Jamaica | 9.95 | | 7 | 8 | Marc Burns | Trinidad and Tobago | 10.01 | | 4 | 9 | Churandy Martina | Netherlands Antilles | 9.93 |   In math journals/notebooks:  1. Put the results in ascending order and identify who won the gold, silver and bronze medals.  2. Round each result to the nearest ones and tenths place. How would the results have been different if the Olympic committee rounded results to the nearest tenth before determining the winner?  3. Write the medal winners’ result times in expanded form.  4. Draw a model/picture of Usain Bolt’s result. | | | | | |
| **Guided Practice:**  **Use the times from the Activating strategy.**  Record the times in a random order on the board. Put the students in groups. Each group will create a chart that has the numbers in ascending order. They will also round each number to the nearest one’s place and the nearest tenths place.  Each group will then create questions that can be answered from their chart. Use the questions from teacher directed as a model for the students to use. | | | | | |
| **Independent Practice:**  Use the questions created in Guided practice. Each group will switch questions and solve. Have the groups rotating questions as much as time allows.  Problem Solving:  1. Write a decimal number using the digits 9, 8, 7, 6, 5, and 4. It must have a 9 in the tenths place, 6 ones, 8 tens, and 7 hundreds. The digit 4 is a whole number. The number is less than 5,000. 4,786.95  2. Write a number that can be rounded to 0.65 using the digits the digits 4, 6, and 8.  .648  Use the following to solve questions 3-4  *Suzanne is reporting the scores from the gymnastics competition. She know the Longwood team had a total score of 38.275 on the vault and 42.750 on the floor exercise. Westridge had a total team score of 38.450 on the vault and 42.655 on the floor exercise*.  3. Which team had a higher total score for the floor exercise?  Longwood  4. Which team scored higher than 38.30 on the vault? Westridge | | | | | |
| **Closing/Summarizing Strategy:**  **Ticket out the Door**  Put the following in descending order:  13.009  13.09  13.909  13.9  Round each to the nearest tenth and hundredth place. | | | | | |
| **Differentiation Strategies** | | | | | | |
| **Extension** | | | **Intervention** | | | **Language Development** |
| Use the following to answer the questions below:  *It was reported that one gymnast scored 7.90 on the vault. A second gymnast scored 0.50 of a point higher. A third gymnast scored 0.20 of a point higher than the second.*  1. What was the highest score for the vault?  2. Suppose another gymnast scored 0.05 of a point higher than the first. What would that gymnast’s score be?  3. Mike’s goal was to run the 200-meter race in less than one minute. The first day he recorded his time as 60.12 seconds. The next day his time was 0.05 second faster. The third day his time was 0.08 second faster than the second day. Did Mike reach his goal?  Yes, third day was 59.99 seconds | | | Allow students to use paper/plastic money to solve  1. As an editor for her school newspaper, Suzanne needs to purchase some writing supplies. She selects 2 pens for $1.15 each and a writing pad for $1.35. How much will she spend?  Which coins and bills can Suzanne draw to find the solution?  2. School newspapers were sold for $0.25 each. If Vince collected 7 quarters, 4 dimes, and 2 nickels from his class, what is the total amount of money he collected? | | | Use the vocabulary listed below to complete the sentences  *Decimal*  *Expanded form*  *Rounded*  *Base-10 number*  *Thousandth*  1. The usual way of writing a number is called the \_\_\_\_\_\_\_\_\_\_?  2. The number 200,000 + 30,000 + 100 + 60 + 9 is written in \_\_\_\_\_\_\_\_\_\_\_?  3. Seven tenths can be written in \_\_\_\_\_\_\_ form as 0.7.  4. The value of the 6 in the number 4,325.026 is six \_\_\_\_\_\_\_\_\_\_\_\_\_?  5. The number 23,492 can be \_\_\_\_\_\_\_\_ to 23,500. |
| **Assessment(s):**   * “Comparing Decimals! The Road to London” from Guilford County Schools * Check “Ticket out the Door” | | | | | | |
| **Teacher Reflection:** (Next steps?)   * What went well? * Specific notes about students’ thinking * Student understandings/misconceptions * What do I need to reteach/review tomorrow or in the future? * New ideas or changes for next time | | | | | | |